DX AUTOMOTIVE Sales Analytics STRATEGIC INSIGHTS

NDUSTRY ROUNDUP

Final Edition

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WHAT'S NEW:

- Luxury Segment Shifts Infographics
- Upcoming: Fleet/Leasing and Tech Surveys Email the SASI team for more info

MAINSTREAM" ELECTRIC VEHICLES?

hen the Tesla Model 3 finally launched in late July, with its first deliveries to owners and a limited number of media impressions, Motor Trend called it "the most important vehicle of the century." The magazine's testing director fawned over the car's acceleration, handling and feature set, suggesting that a major event has occurred that will set the tone for all cars that follow.



Tesla Model 3, photo credit: Tesla

Press for the Model 3 has generally been very positive, but the jury is out about whether the company can truly get close to its ambitions. Tesla has been making progress towards its production goals, but there is rightful skepticism about its stated target of 10,000 cars per week, or around half a million per year, particularly because the company's 2016 production was only around 84,000 vehicles of both the Models S and X.

Tesla's Fremont, CA, plant, when it was operated jointly by GM and Toyota, had a capacity of over 400,000 cars a year, and the EV company has been expanding its capacity and working more with established suppliers that have experience in delivering this scale of parts. Still, this is a massive undertaking, and the company has only recently begun to reliably hit its goals.

Robust debate

While time will tell what the production ramp-up will look like, there's a robust debate in the media about the potential impact of the launch. Rebecca Lindland, Cox Automotive Executive Analyst, recently published a thorough piece of analysis countering some of the more sensationalized coverage, and arguing that there are a significant number of barriers to the Model 3 actually going "mainstream." That article is reprinted in this issue, since it's a very worthwhile read.

But there's another way to look at the "event" being made of the more affordable Tesla's launch. The Model 3 could help the EV market writ large finally hit a much-needed inflection point.

As an industry analyst who has been watching the development of the electrified vehicle market with interest for years-I wrote my very first automotive-related article about the near-simultaneous launches of the Toyota Prius and Honda Insight hybrids—it's been curious to see the sluggish pace of adoption for these vehicles. As Lindland points out in her story, EVs comprise only around 1% of sales, though that proportion is increasing.

There have been various factors holding back wide-scale adoption, the principal one generally being cost. The Nissan Leaf and Chevy Volt were the first major salvos trying to convince the public to buy plug-in vehicles, though they didn't burn up the sales charts, and various break-even analyses at the time revealed that it would still take many years to recoup the elevated cost of these cars versus alternatives

The other most cited factor is the driving public's fears over how well (or poorly) an EV might fit into their lives. The term "range anxiety" entered the public vernacular in the

by RANDY LIOZ

Manager, Sales Analytics Strategic Insights

late '90s, and GM even briefly trademarked the phrase to sell the Volt, with its "range extender" gas engine, but this only solved the range part of the equation, not the cost aspect.



2011 Chevy Volt, photo credit: GM

The prevailing predictions, including from Bloomberg New Energy Finance and UBS, indicate that the cost curve won't make sense for the general public until around 2025, which has dampened enthusiasm among many industry analysts.

OEMs on board

But this is only part of the story. This cost curve is independent of the tax incentives, which are helping to bridge the gap until the pricing truly makes sense. While state tax incentives have been drying up lately, the other important factor here is the attitudes of the automakers.

(continued on page 4)

NEWS ROUNDUP

Reuters: Hyundai plans long-range premium electric car in strategic shift

NY Times: As Emissions Scandal Widens, Diesel's Future Looks Shaky in Europe

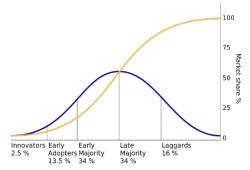
Auto News: Feds in sync with industry on autonomous cars

WHY MOST PEOPLE PROBABLY WON'T BUY TESLA'S MODEL 3

Executive Analyst

ith much fanfare and talk of going mainstream, Tesla recently unveiled its latest baby, the Model 3, with a base range of 220 miles and an accessible starting price of \$35,000. The Model 3 sedan's price is right in line with today's average transaction price of \$34,721 for a new car, according to my employer, Kelley Blue Book. But calling the Model 3 mainstream is a bit of a misnomer, given that the vehicle is, regardless of price, electric. In fact, the only thing mainstream about the Model 3 is the price.

As part of my work on the 2014 report, "Overcoming Barriers to Deployment of Plug-In Electric Vehicles," for the National Research Council at the National Academies, we applied the innovation curve, as first created by Bryce Ryan and Neal Gross in 1943, to electric vehicle adoption. According to Ryan and Gross, innovators (2.5% of the population) are willing to take risks even if they fail, since they have the resources to withstand an imperfect technology; think Tesla Roadster buyers circa 2008 and first-inline Model S owners, as well as Model X buyers, due to the falcon-wing doors.



The diffusion of innovation, figure credit: Everett Rogers

Next on the curve are early adopters (13.5%), who are a bit choosier about the technology they adopt, and are seen as the go-to resource for intel on new tech, providing reassurances about its viability. They are more price sensitive, but still risk tolerant. In today's world, early adopters are also known as influencers; I would argue these are current Model S owners and Model 3 deposit holders and soon-to-be buyers.

The next set is the early majority (34%). Early majority mindsets need convincing—they're willing to embrace technology, as long as they understand how it fits into their lives.

These are the people Elon Musk and Tesla needs most.

Given that only about 1% of all new car buyers purchase an electric vehicle every year in the U.S., the technology itself is still very much in the innovator class. Even hybrids, in the market for nearly 20 years now, accounted for just 2.2% of new car sales in 2016, down from a high of 3.3% in 2013, according to MotorIntelligence. In fact, IHS Markit reports that hybrid and electric vehicles combined for just 3% of new car sales globally, so it's taken 20 years for hybrids to move beyond the "innovator" 2.5%. Over 16 million unique shoppers come to Kelley Blue Book every month to research cars. Only about 3% research luxury electric cars and only about 2% research hybrid vehicles.

Tesla faces other challenges to reaching the

early majority in addition to the general disinterest in purchasing electric vehicles. One of those is the Model 3's size and body style, which falls into the compact luxury sedan category, similar to the BMW 3-Series or Audi A4. The Model 3 is a four-door sedan, not even a hatch, in a world where SUV sales are booming as consumers demand more utility from their rides. While the Model 3 does have a front and rear trunk, it doesn't have anywhere near the

cargo capacity of a compact SUV so popular in today's market.

Another barrier is the \$7,500 federal tax credit currently available for buyers of the first 200,000 units a manufacturer sells in the U.S., which started in 2009. Sales of the Model S and Model X, with a few Roadsters thrown in, mopped up more than half of Tesla's 200,000 unit allotment. By some estimates, Tesla shoppers will no longer be eligible for the tax credit starting in mid to late 2018, just when it needs some financial risk mitigation to move through the innovation curve. While some states are offering incentives, a new trend is for those states to not only apply a salary cap to eligibility for a tax credit, but impose fees on electric vehicle owners to make up for not paying taxes on fuel. This could further stifle

adoption, even in the face of decreasing battery costs and increasing availability of charging stations.

The rest of the automotive world is not standing still either. In response to increasingly discordant regulations calling for the complete ban of internal combustion engine vehicles by India, U.K., France, and China by a seemingly arbitrary 2030 or 2040 deadline, nearly every luxury and nonluxury brand will have an electric vehicle in its stable by 2020, whether consumers want them or not. Most if not all will have a 300plus mile range, along with a well-established dealer body for sales and services. GM and Nissan will probably lose their tax credit sometime around 2018, but many other companies will be able to sweeten the pot with state and federal credits, providing additional competition to Tesla just as the current backlog is fulfilled.



The Tesla factory in Fremont, CA, image credit: Tesla

There's a lot of well-justified angst over the highly aggressive production curve Musk outlined for Tesla for the Model 3, and ramping up a vehicle plant is no small feat. There's also a lot of skepticism about its charging network, dealer franchise laws, and servicing the vehicles. But many—if not all—of these issues fall within the circle of Musk's control. What falls outside that realm is the consumer's willingness to accept the notion that an electric vehicle—and a Tesla in particular—fits into their lives better than an internal combustion engine does. That's the real challenge to Tesla going mainstream.

This article originally appeared on Fortune.com on August 2^{nd} . Reprinted with permission from the author.

MPG EVENT: DROPTOPS & DIRT

AND RANDY LIOZ Sales Analytics

n July, members of the Sales Analytics team attended the Motor Press Guild's Droptops and Dirt event, at Calamigos Ranch in Malibu. It's an annual event that gathers together auto journalists and analysts to give them exposure to a variety of convertibles and trucks/SUVs, driving the former on the roads around the ranch, and the latter on off-road trails. Most members of Sales Analytics don't have much experience with a wide range of vehicles on the market. so MPG events are a great chance to get that all in one place.



Michelle Le:

At the MPG event, we drove a variety of vehicles from compact SUVs to full-size pickups. Although there were certain nuances to some cars, I think a lot of it can be attributed to the ride height and suspension. The general sense that I got from the event was that the higher the vehicle, the smoother the ride and the better the visibility. There were some vehicles, like the Jeep Compass, that had the ability to switch to different riding options (from Sport, AWD, etc.) that could be used at different parts of the course. For instance, going up a steep hill would require a different gear from a flat road or down a hill.

One of the driving instructors who wasn't affiliated with the brand and mostly transported these vehicles had a very interesting comment that I think could only come from an objective point of view; he said that most of these extra features aren't necessary in a consumers' life and would fanciest gadget to go off-roading and even the lower-end models will suffice, but consumers in this market aren't the most educated in these differences. Despite that belief, there were different course options assigned to each vehicle based on their capability. For instance, the Hyundai Tucson took an easier, flatter course whereas the Honda Ridgeline went through much steeper (and scarier) challenges.

The back-up camera and round-view monitors were a lifesaver. I've never really had this capability in any vehicle that I've driven (even when I rented), but it was so crucial in these vehicles. Although I could look through the rear myself in some of them, some had poor rear visibility without it or those that didn't might've had a dusty window from the all-day off-roading.

Mai Nguyen:

I was able to drive a variety of vehicles that I had never driven before. This was a pretty neat event for a newbie like me. The exposure to all the vehicles we talk about at work was phenomenal.

THE EXPOSURE TO ALL THE VEHICLES WE TALK ABOUT AT WORK WAS PHENOMENAL.

Mai Nguyen, Analyst, Strategic Insights

Randy gave us a list of vehicles we should focus on, so that was really helpful. So my goal for the day was to drive the hot Compact SUV segment and see what all the rage was about. I currently drive the Sorento, which is a midsize SUV, so going down a size wouldn't be such a big deal. I got in the Tucson and was pleasantly surprised by the way it handled the off-road course. I had my doubts, but it was super smooth and easy to maneuver. It even had downhill assist, which wasn't really needed on the easy course, but a good feature to have. I really didn't know if it was the same downhill assist where you could let go of the brake like and the car takes over; it was my first ride and I didn't even know that was even possible.



I rode in the Sportage next and I was immediately annoyed by the safety warning system; it kept beeping or talking since we were near branches and debris on this dirt road. Not knowing how to turn it down or off, we just endured. I thought ride was just as good as the Tucson. I'm not sure how it handled since I didn't drive it. It had downhill assist as well and I survived the ride with Michelle being behind the wheel of an SUV for the first time.

The CX-5 was an even better ride. I'm not sure how to describe it, but it felt more nimble and tight compared to the Sportage and Tucson. I guess "fun to drive" comes to mind. I like the way it looked inside, as well.



I tried the subcompact Compass and that was pretty cool, too. It came with a handler, and he showed me all the bells and whistles. We took the Compass on the hard course, and he demonstrated how to use downhill assist...the right way. He pushed the button, and told me to lift my foot off the brakes. It went against all of my instincts, especially going downhill, not to have my foot on the brake. It performed quite well; you can feel how the tires adjusted to the dirt and gripped and grabbed as we went downhill. I could see it being a very needed safety feature if you regularly go down steep hills, which we do all the time where we live!

I drove the MDX, and was kind of weirded out by the lack of a shift lever. Instead it has buttons, and to be honest I didn't like that at all. But once I figured how to shift into reverse and drive, it was super comfortableeven smoother and plusher than all the other vehicles I drove. I could get used to a life of luxury!

I drove the Ridgeline and Colorado, as well. I like the look and feel of the Ridgeline-it felt like an SUV inside and handled the more difficult course like a champ. The Colorado felt a bit more rugged, like how a truck is supposed to feel. It was one of the only vehicles that I rode in which didn't have a backup camera, if I remember correctly. I thought that was surprising because I thought all new vehicles are required to have those now. (continued on next page) (continued from previous page)

After a while, things kind of blended together! Anyways, I had a fun time, and also felt super lucky because I got to experience a bunch of new cars I had only seen on paper.

Dhara Mehta:

This was my first time attending a drive event sponsored by MPG. At first glance, the place was a little intimidating, surrounded by auto journalists and industry personnel, but the warm welcome from the president of MPG, Mike Harley, helped us ease into the mix. I was really impressed by the number of vehicles available to drive from all different segments. A few of my favorites included the Chevrolet Colorado, Toyota Tacoma, Land Rover Discovery, Jeep Renegade, FIAT 124 Abarth, and VW Beetle Dune. The event also had the all-new VW Atlas for testing.

My favorite part of the event, more than offroading the vehicles, was the experience with infotainment systems. Unlike the limited time at dealership, the event allowed us to experience the vehicles and the added infotainment for 10- to 15-mile drives, ample time to understand the ease of use, connectivity, available features, innovative safety features, such as automatic braking, stability control, hill start assist control, crawl control, etc. I thought the Toyota Tacoma and Land Rover Discover were very impressive with their safety technology. The Discovery offered crawl control in addition to a semi-auto pilot option. At one point during off-roading, the car

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OEMs like GM and Nissan have signaled their willingness to support EV strategies even before they're making money for the business, particularly in the face of regulations around the world that are bringing to bear pressures that cannot be addressed without electrification, and these companies are trying to lure customers into the EV market with attractive lease deals.



VW I.D. Crozz EV concept car, Photo credit: Volkswagen

For many of the Europeans, their change in attitude was precipitated by the diesel scandal, which has threatened to engulf more of them than just VW. Volkswagen's reaction to that issue was to pivot towards an

seemed almost self-driving! It would accelerate and brake all on its own! Toyota Tacoma, on the other hand, offered a Multi-Terrain system. At the turn of a dial, I could customize Tacoma's performance to match the terrain. For a first-timer like me, the off-roading was daunting; but the reliable safety features embedded in the vehicles (which took some time for me to trust them) made me feel at ease. Although, while driving the VW Atlas, the Hill Start Assist and Crawl Control did not activate. One exhilarating ride for sure.



Photo credit: Michelle Le

As for cons: the weather was not forgiving. Driving those convertibles in the blazing California sun was not a pleasant experience. Another downside for drivers such as myself, who can only drive an automatic transmission, there were limited convertible cars to drive. Lastly, it seemed the Jaguar F-Pace was the most popular vehicle, so not many people got a chance to drive it. I was

electrification strategy in recognition that squeezing more energy out of a drop of oil was a half-measure. They needed to go further.

While the U.S. government is not currently in the mood to further support EV rollouts, the rest of the world is not standing still, and will be aggressively helping OEMs ride down the cost curve.

More car companies are signing up for the challenge, as they see growing public concern about climate change and the resulting regulatory pressure. Both Toyota and Hyundai, which until recently had been planning to skip the EV movement on their way to a theoretical hydrogen economy, have made a U-turn in the face of Chinese government support for EVs, their new path forward including long-range electrics. Hyundai made its announcement just last month.

(Even FCA, whose leader had until recently had been publicly ridiculing the practicality and potential of EVs, has more recently been publicizing its plans for electrifying its lineups.)

also looking forward to driving more EVs, but there weren't many options there.

Overall, it was a very good event. I would recommend people in our group attend and get some great driving experience with these vehicles.

Randy Lioz:

In addition to the regular Compact SUVs, there were the brand new Nissan Rogue Sport and Jeep Compass, along with the Mitsubishi Outlander Sport, a set of vehicles that falls somewhat between the current crop of Subcompact and Compact SUVs in both size and price. Based on this experience, there's reason to believe that this positioning might be a new sweet spot for a fair number of buyers, as there was still a good amount of passenger space, even in the back seat, and they give a similar ride height advantage as other utilities, which we've seen from our surveys is very important to shoppers.

Another interesting takeaway is the unexpected capability of even the crossovers on the market. It can be surprising that a vehicle like the Hyundai Tucson can crawl some impressive trails, owing purely to the fact that it has AWD and decent ground clearance. In fact, when driving the truckbased Lexus GX and the car-based Acura MDX back-to-back, the experience is remarkably similar, and actually more drama-free in the MDX. This helps to give some insight into the completeness with which the industry has switched toward carbased utilities at this point.

With the world's biggest automakers all finally on board with the idea that EVs are the future, it naturally behooves them to get to that future as quickly as possible to drive down costs for batteries and electric components. And that means getting the public on their side.

The good news in this regard is that EVs totally make sense for the public in a lifestyle sense, and some very smart people are already trying to help make that case. Over a year ago, MIT and the Santa Fe Institute published some research that stated that "87 percent of vehicles on the road could be replaced by a low cost electric vehicle available today, even if there's no possibility to recharge during the day."

And the results were pretty consistent across cities in the U.S., ranging only from 84 to 93 percent, even for large metro areas. Many people believe that EVs only make sense in tightly packed cities, but this just isn't the case. And since that study was completed, the equation has only gotten better.

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Strategic Insights did a study on EVs earlier this year which reflected this reality. It emphasized the extensive education effort that lies ahead, but pointed out that serious EV considerers were already aware of the benefits of these vehicles, like lower maintenance and government support in the form of tax incentives and HOV stickers.

Those who wouldn't consider one are wrapped up in concerns not only about whether it fits their lifestyle, but also what the lifespan of the battery is. Studies on this issue have shown that this is another concern that's been overblown, since battery degradation is generally not enough to impact usability for quite a while.

To really kick-start EV ownership, the general public needs to internalize these realities. For most people, the idea of driving an EV is just too remote. They see them on the road occasionally (especially if they don't live in a coastal region), and view them as a minor curiosity.

Mainstreaming the idea

But what happens if Tesla gets even halfway to its stated goal? Let's say it sells 250,000 Model 3s next year—given that the company still has around 450,000 orders outstanding, the demand side seems poised to cooperate. A quarter million cars is right around the number of Explorers that Ford currently sells per year. Seeing that number of cars on the road that are clearly EVs would go a long way toward mainstreaming the idea of EV ownership, much more than the fewer than 20,000 apiece of Leafs and Volts that are averaged each year, or even than Tesla's 84,000 cars that are seen as out of reach for most.

The innovation curve that Lindland cites in her article is fueled by both mass and interpersonal communication. Getting closer to a critical volume of vehicles would strongly reinforce the latter, especially with the high customer satisfaction rates among EV owners.

The other visibility issue that needs to be addressed is charging stations. There are still almost ten times as many gas stations as there are EV charging locations in this country, but that number has come down drastically. And in places like Orange County, you can actually see a similar density of fueling spots for both when you look on Google Maps, though to be fair the charging stations are often solitary chargers, and availability is a different story.



Photo credit: M. O. Stevens

stations are.

Still, the average person may not realize that they're surrounded by EV charging stations. They're usually indicated by an inconspicuous sign that blends in with the rest of the parking signs all around, if there even is a sign.

Only when someone actually takes the leap into EV ownership do

they generally register where most of these charging

Gas stations, in the other hand, announce their presence for blocks around, with giant pillars that can be seen from the highway. This disparity reinforces the notion of how much of an inconvenience driving an EV might be.

But this ratio will continue to shift as more charging stations continue to pop up. The build-out of the network will continue at a high rate, with plenty of public and private investment money flowing. There's also a further push from electric utilities, as declining demand for electricity has cut into their revenues. And more residential installations are being made available through apps like PlugShare.

Still, it may be tough for infrastructure to keep up if EVs truly go mainstream. But with more and more homes installing solar roofs and even battery storage, it makes sense to use this diffuse network to the fullest, and enable private owners to make money from their charging stations. This is already happening in Sweden, enabled by Renault.

All of these influences may be converging at just the right time, when the availability of long-range EVs like the Model 3 and Boltand next year a long-range version of the Leaf-finally available for a price much closer to that of the average new vehicle purchase price. But it will still take a truly concerted effort on the part of all those involvedincluding OEMs, government, charging networks, utilities, and even consumers who feel it's about time we moved on to the next generation of transportation—to ensure that the U.S. can still be a leader in what will undoubtedly be the propulsion of the future, and to move the electric vehicle from the fringes to the mainstream.

THE BRAND FILE: CORVETTE VS. 911

by RANDY LIOZ

Manager, Sales Analytics Strategic Insights

he Chevrolet Corvette and Porsche 911 are both icons. The American has been around since 1953, while the German showed up roughly a decade later.

From the beginning, it seemed like Porsche priced its car as if the 'Vette didn't even exist. While one could take home a Corvette Sting Ray coupe with its standard V-8 for around \$4,000, the flat-6-powered 911 would run you nearly six grand. This for a car that had barely half the power of a Corvette, with comparably different 0-60 times.

Fast-forward to 2017, and that pricing premium has grown even further. While you can grab a 455-hp V-8-powered Corvette Stingray for around \$51,500 (according to KBB.com's Fair Purchase Price), the price of

entry for a 911 is \$84,400, a 64-percent premium.

While the Vette outsells the 911 here by a margin of more than 3 to 1, in the rest of the world the 911 more than doubles Corvette sales, while still holding a pretty decent price premium (e.g. ~23% in Europe).

This pricing disparity is even starker

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Photo credit: Rick W. Dryve from Berlin, Germany (Chevrolet Corvette Z06.R GT3) [CC BY 2.0 (http://creativecommons.org/licenses/by/2.0)], via Wikimedia Commons

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considering all of the other advantages in the Corvette's corner: it out-guns the 6-cylinder 911 by 84 hp and 129 lb-ft of torque, yielding a sub-4-second 0-60 time (the 911 takes 4.4s); it out-corners the German, pulling 1.13 g on a skidpad vs. the 911's 1.06 g; and it even holds more stuff, with 15 cu. ft. of cargo room to the 911's 9.

The 911 does have a few tricks up its sleeve, like its back seat (though anyone who's been unlucky enough to occupy it would call it a pretty lame trick) and its fuel economy advantage. Compared to the Chevy's groan-inducing 19 mpg combined, the turbo-six in the base 911 gets a rousing 23 mpg. But these are premium sports cars, so does anyone care about the fuel economy part?

These advantages hardly explain the \$33k bump. So what does?

Well, since this feature is called The Brand File, you probably guessed it: brand. In this case it's also important to look at the distinction between brand and nameplate. While both vehicles are effectively halos for their marques, the 911 is much closer to the essential brand identity that is Porsche, and that identity is about one thing: performance.

In the Premium Sports Car category within our Brand Watch survey, the 911 is rated at the top for driving performance. This includes other performance icons like the Audi R8 and Nissan GT-R, so it's clear the Porsche is given full credit for its higher-performance variants like the Turbo and GT3 models. And it's not only performance, but the 911 tops the reliability, reputation,

interior layout and prestige categories as well

While the Corvette does win the styling category, it's basically tied here with the 911. The only category where shoppers perceived a distinct advantage for the Vette was affordability.

Porsche has had a lot of success branching out from its sports-car-only positioning of the turn of the millennium. Even as it has become, by and large, an SUV company, selling more utility vehicles than cars each year, its brand still enjoys the sports car halo to the fullest. Which means that it may continue to get more difficult to afford a 911. But the Chevy Corvette will likely remain the best value in the sports car world.

KBB Editors' Perspectives

Karl Brauer

As noted, these are iconic sports cars due to their rich heritage, impressive race history and loyal fan base. I also think the Chevrolet Corvette and Porsche 911 each perfectly reflect their countries of origin. The Corvette has always been a powerful sports car offering exceptional value. Its quality and refinement ebbed and flowed over the past 65 years, but even at its low points it provided solid bang for the buck.



Photo credit: GM

The Porsche 911 has been far more consistent in its approach to precise handling and uncompromised feedback, though early models could be a handful if

you didn't know how to drive them. Sophisticated engineering and quality construction also never wavered in the 911's 55 years, nor did its high purchase price and strong resale value.

It's actually fascinating that both cars have been around over half a century, yet even the latest models hold true to the philosophies that Chevrolet and Porsche started with in 1953 and 1963. Their distinctive nature doesn't lend itself to a "right/wrong" or "better/worse" assessment. Any argument claiming one is superior to the other could be easily countered by a sports car aficionado. Ultimately, the automotive world is far richer with both of them in it. Here's to the next half-century of Corvettes and 911s.

Mike Harley

Don't be surprised to learn that subjectively the Chevrolet Corvette and Porsche 911 are apples and oranges — few buyers in the segment would cross-shop the two sports cars. While both boast decades of accolades, the Corvette utilizes America's muscle car approach to performance with a big engine

mounted in the nose and plenty of brute force.

The 911, on the other hand, features a rearmounted engine (half the size) and focuses on low mass to equal the playing field. While both manufacturers have engineered their



Photo credit: Porsche

vehicles to target driving enthusiasts — Corvette and 911 owners are each just as passionate — Chevrolet has deliberately kept its cost-of-entry low to appeal to a broad hard-working audience. Porsche, however, has leveraged the cachet of its 911 model and priced it accordingly. Both are fun to drive, great looking, and well built. Quite frankly, you can't go wrong with either.

NOTE FROM THE EDITOR

by RANDY LIOZ

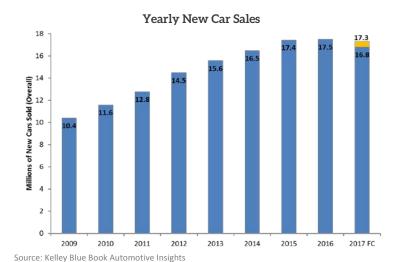
Manager, Sales Analytics Strategic Insights

Due to resource constraints, this will be the final edition of the *Industry Roundup*. I would like to thank all of the people who contributed to the newsletter over the past year, from both within the Strategic Insights team and from outside.

I'd especially like to thank Hwei-Lin Oetken for her support, and for recognizing that many of the topics raised herein are very relevant to our clients as they navigate a changing industry. As technology becomes ever more important to car buyers and even begins to change the ownership dynamic, it's important to continue to look forward and harness these forces to benefit drivers and passengers, and to strengthen Cox Automotive and its clients.

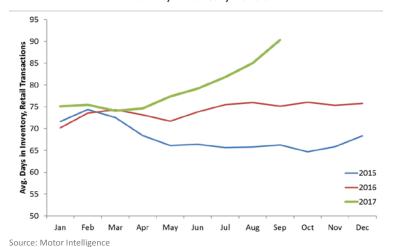
MARKET UPDATE

by <u>RANDY LIOZ</u>, Manager, Sales Analytics Strategic Insights and <u>TIM FLEMING</u>, Manager, Residual and Industry Forecasting



he sales forecast for 2017 has an upper limit below 2016 sales, so there will almost certainly be a decline in new car numbers from last year, despite the additional demand being generated by Hurricane Harvey-related flooding and car scrappage. The forecast is unchanged since last December, when it was lowered by around 200,000 units versus the previous month. The peak comes as a result of pent up demand from the decade-ago recession being fully filled, as well as from headwinds generated by shifting consumption patterns. But increased incentive levels suggest that the recent sales rate was already above the natural demand in the market.

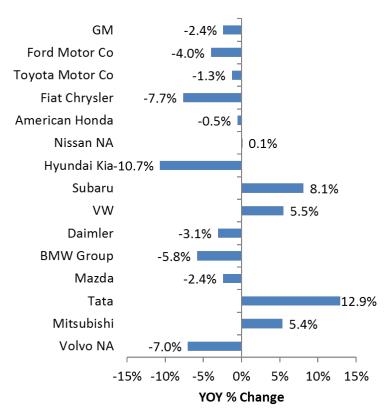
Monthly Inventory Levels



Even with incentives that have continued to rise, staying above 10 percent of MSRP, OEMs are sitting on ever-growing inventories, up more than 5 days from the previous month, though that may come down by the end of September.

Over the previous two calendar years, inventories remained within the healthy limits of 60 to 75 days, but they were kept there by increased cash on hoods and manufacturers pushing leasing programs with subvention. Lease penetration has come down a bit from last year's peak as automakers grew wary of the building glut of lease returns, especially in the Compact and Midsize Car segments. But they will need to crank back their production levels to adjust to the new level of demand, or at least shift more domestic production to small SUVs.

Yearly Sales by Manufacturer



Source: Kelley Blue Book Automotive Insights

Hyundai-Kia's sales continue to decline, with year-over-year drops every month of 2017. Kia's sales were down 8.4%, while Hyundai's drop was more than 15%. Their lineups are relatively fresh, but these brands are hurt by their reliance on car sales.

Source: Kelley Blue Book Automotive Insights

Both HKA and VW have a much stronger portion of their sales coming from cars, and neither has yet fielded a Subcompact Utility, which was one of the few segments with growth over 10% year over year. VW, however, is expanding its SUV lineup with Atlas, and has just redesigned the Tiguan to fit the U.S. market better.